DataBox *Speed Dragon*

User's Guide

Dear Customer,

let us **begin by complementing you in your choice of the Speed Dragon Data Box and** thanking **you for placing your confidence in us. In choosing the Speed Dragon Data Box you have** chosen **a** multi-functional product. **The accompanying** software **provided on CD-ROM** can **be** split up **into the** modules **listed** hereafter.
Under **Win 95 The individual** modules **will automatically be offered for installation when the CD-ROM** is **inserted.** Under WfW **3.11, insert the CD ROM and** start "Install.exe".
The installation can **be** carried **out in German, English,** French **or Italian, depending upon the country** codes **installed on the PC in** use. **For all other country** codes **the installation will be made in English.**
Installation of the individual modules **will then be** carried **out to comply with the relevant operating** system, **Win 95** or WfW 3.11.

1. Hagenuk Data Box

- Set-up software **for the Speed Dragon Data Box private** automatic branch exchange **(PABX)** functions,
- **Dialling** assistant **programme.**
- Call charge **display** option,
- "CAPI-View", **for Interface monitoring,**
- **"Data Box System** Control",
  - **to set up the** system **Parameters or**
  - **to reset the Speed Dragon Data Box**
- **"Flash** Loader", **by way of** which **updates** can **be installed,**
- **"EAZ Mapper" (only when** using **the CAPI** 1.1),
- "CAPI-Switch", **to** switch **between the CAPI mode and AT Hayes commands** without **having to restart the PC (Note: Mac Users will work in** the **AT Mode only),**
- Special **Online** assistant, which can **be used** as **a reference at any time; also available in WIR format, for printing out if so required,**
- **Detailed** documentation **for those who wish to operate the Speed Dragon Data Box in the AT mode** (ATMODUS.DOC **or** ATMODUS.TXT).
- "Uninstall" **Programme, to completely remove installed Software.**

2. RVS-COM (Lite-Version):

- **File transfer / Eurofile transfer,**
- Softfax **(Group 3, with a transmit / receive transfer rate of up to** 14.400 **bps),**
- **Mailbox (Fax / Data** / Voice reception; **integrated EFT mailbox with guest access),**
- **Answering** machine **(with WAV** conversion **facility, i.e.** record / **replay via sound** card).
- **ISDN modems,**
- **Terminal.**

An installation assistant accompanies you through the Programme installation. In addition, detailed on-line assistance is **also available at any time.**

3. T-Online Decoder with Internet access (for Germany only)

Detailed information **on this** subject **is available within the T-Online Programme group,** under **TIPS** & **HINWEISE.**

4. Microsoft WordViewer

This module need only be installed if the documentation **supplied needs to be printed out** and **the** "Word" **Programme** is **not available.**

We wish you much **pleasure with your newly purchased** product
Your Hagenuk Team

Con

1 Data Box Performance Features 2
1.1 Equipment concept 2
1.2 Functions at a glance 3

2 Putting into Operation 6
2.1 Guide to putting the Data Box into Operation 6
2.2 Connections 7

3 Operating Guide 9
3.1 Using the telephone keys 9
3.2 Code numbers 9
3.3 Advisory tones in the telephone receiver 9

4 Setting up Data Box functions using a telephone 10
4.1 Guide to functions 10
4.2 Entering the dialling (area) code 10
4.3 Telephone number allocation / MSN allocation to the ports 10
4.4 Call charge meter 12
4.5 Calling line identification restriction (CLIR) 13
4.6 Authorisation for external calls 13
4.7 Diverting calls at the ISDN network exchange 14
4.8 Diverting calls via the Speed Dragon Data Box 15
4.9 Selecting the dialling tone for a port 15
4.10 Remote programming 16
4.11 Resetting to factory default settings 16

5 Making Calls 17
5.1 General 17
5.2 Making a call 17
5.3 Consultation 18
5.4 Extending a call 18
5.5 Toggling 19
5.6 Conference 19
5.7 Call pick-up 20
5.8 List of callers 20

6 Additional Information 21
Technical Data 21
Connections 22
Factory default settings 22
Cleaning 23
Note 23
Registration and CE label 23
Questions and answers 24

1.1 Equipment Concept

Dear customer,
you have purchased the *Speed Dragon* **Data Box. First of all we would like to explain exactly what type of a** device this is, **as we have integrated a number of features which are unique in this** constellation.

You have:
- **a PC with a** 486/66 **MHz** processor **or** better **(100 MHz are recommended for the RVS-COM Software** Softfax **programme)**
- **a High Speed UART 16550 [Standard** on newer PC's, can be **retrofitted to older models as a plugin** card)
- Windows **3.11 or Windows 95**
- **an ISDN multipoint access with** DSS1 **protocol (a "Standard" Euro ISDN** basic **access)**
- **up to 3 analogue telephones** with **a** signal **or flash key (on some** telephones **this is** labelled **with** "R") **with a flash time of approx. 88** ms.

You want:
to use full ISDN speed **for your data transfer**
- **the simplest possible method of** changing **from analogue access** technology **to ISDN**
- **to continue using your analogue telephone**
- **to continue using your analogue** modem
- **the incoming caller's number to be displayed**
- **a list of callers with the possibility of calling back**
- **the fastest PC FAX Solution on the market, in** order **to** minimise **telephone** bills **(up to** 14.400 Bit/s **in both** directions)
- **a** complete **Home Office solution with FAX, answering** machine, **Internet access on your PC.**

The *Speed Dragon* **Data Box fulfils all the above requirements and offers you the simplest possible form of access to ISDN with all its advantages. To these ends, we have put together a complete hardware/software package which offers you the kind of functionality which** can only **otherwise be found in ISDN PC boards combined with** a/b converters.

The *Speed Dragon* **Data Box functions automatically, immediately after connection to the ISDN network.** You can **make telephone** calls **or** receive Faxes **immediately. After installing the Software, which gives you all the** assistance **required, you** can **subsequently Programme your** *Speed Dragon* **Data Box at your** own **leisure,** using **a Windows Programme.**
The *Speed Dragon* **Data Box does not require you to open your PC, what** you **actually do** is **to use the serial** interface **of your PC for data communication. No more searching for free interrupts or free memory areas. All you need do is;** plug-in, install **the Software and** start **data** communication.

The *Speed Dragon* **Data Box is. technically** speaking, **an** a/b converter with **3 analogue** device **ports and an LC Display, an RS232 data** interface **with CAPI Interface** under **Windows and a** comprehensive software package (complete ISDN package).

Die *Speed Dragon* Data Box can be operated as a desktop device next to your PC. In this operating mode the *Speed Dragon* acts as a kind of analogue ISDN telephone and offers an ISDN data interface for fax and data transfer. You can use the T-Online decoder for access to T-Online and for logging into the Internet (only in Germany). Access to the Internet, can of course be gained via other providers like AOL or Compuserve for example. Telephone and data sections function independently and have no influence on one another.

The 3 functional sections of the Data Box can be differentiated between as follows:

A) Telephone system
B) LC Display
C) Data interface **(PC connection)**

1.2 Functions at a Glance

A) Telephone system

Die *Speed Dragon* Data Box is a complete ISDN telephone system with 3 analogue device ports (e.g.: Telephones, Fax machines, answering machines, modems or PABX). The analogue devices, ports 1 to 3 = a/b-connections, can each be allocated their own individual number (=ISDN connection MSN). A collective call facility (gen. call) can be configured.
These functions can be configured either from the respective telephone or from the PC via the Software. These instructions describe configuration by way of telephone and the use of telephone functions.

Each analogue port operates with spontaneous trunk access, i.e. there is no need to dial 0 to access the trunk line (except if there is a 2nd connection). The usual standard features are available, consultation hold, hold, toggling, 3 party Conference, extension of calls and call pick-up and can be enabled by means of code numbers.
The "call forward/divert" feature is implemented directly in the exchange (if this facility is available for your ISDN connection). Calls can also be diverted by the Data Box.

The system evaluates enabled call charge information (if this facility is available for your ISDN connection) and keeps a record of call charges which are displayed on the LCD. Outgoing caller number (MSN) Information can be restricted. Please also see the description of the telephone functions for all other Performance features which were not mentioned here.

B) LC Display

The 2 line multifunction display in the Speed Dragon Data Box gives you the kind of functionality that was previously only available in high-end ISDN telephones.

LC Display: Idle state:
In the idle state, the display changes continuously **in a 2** second **cycle.**
The following information is displayed:
MSNs **programmed (Multiple Subscriber Numbers, your ISDN connection telephone numbers) or** as **a factory default, the message "no MSN entry, gen.** call active"
- **the B channels** in use **at that time (there are 2 B channels = possible connections per ISDN connection). You** can use **the B channel display,** for **example.** to **check whether** a **connection between the** *Speed Dragon* **Data Box and a telephone** or **PC** is active **at that moment.**
- **possible** call diversions **programmed for the** MSNs
a list **of telephone numbers of incoming callers** or "call list **empty"**
- **sum of** call charges **for the Speed Dragon Data Box**

LC Display: Incoming calls:
For incoming calls, **the telephone number of an incoming** caller (if **this** information **was** transmitted) **and the MSN of your ISDN connection will be displayed. In this way, the user** can **quickly identify exactly** which **number** is **being called and react** accordingly **when answering, if, for example, there** is **one private and one business number programmed into the** *Speed Dragon* **Data Box.**

C) Data Interface
The Data Box has one port (port **4) for digital connection to a PC** (RS232 interface **for connection** to **the** PC's **COM** interface).
Drivers required to **operate the Data Box are automatically** installed during **a set-up procedure.** The **ISDN complete software runs on the basis** of **this, supporting the following main Performance features:**

CAPI interface for data transfer using the appropriate **PC Programme (Terminal, DFÜ, Fax programmes)**

ISDN application software
- **FAX transmission and** reception **at** up **to** 14.400 Bit/s
- **Answering** machine
- **BTX Decoder, X.75 Terminal, Mailbox (Client and Server)**

Installation Software: *Speed Dragon* **Data Box** configuration

Choice assistance software: Signalling calls on **the monitor,** dialling **numbers selected from the address data bank and** list **of callers**

Complete un-install of the *Speed Dragon* **Data Box** software

Speed Dragon **Data Box firmware updates (called** up **from the Server).**
The software **in the** *Speed Dragon* **Data Box** is **stored in a FLASH-ROM and reloading** can **be** carried **out using a Windows Programme. This** allows **you** to load **new Performance features.**
You can **access the Eurofile transfer server** as follows:

Telephone no. (in Germany):	(+49) **4 31 - 88 18 77 09**
Name: "Gast"	Identification: **no entry required**

Data Interface: Technical Data

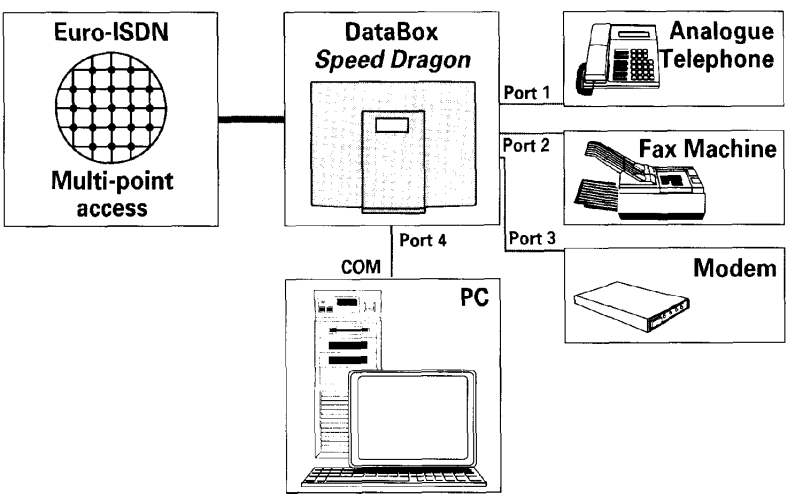
The data section of the Box is an ISDN "modern" with complete CAPI 1.1/2.0 interface. A 32bit CAPI 2.0 (Windows 95), a 16bit CAPI 2.0 and a CAPI 1.1 (Windows 95 / Windows 3.11) interface are available at the PC.

A novel feature of the Data Box is the integration of a serial CAPI interface, which offers a Dual Mode CAPI 1.1/2.0 under Windows 3.11 and Windows 95. When operating with a high speed UART with bit rate doubling (230 kBit/s) two full ISDN B channels of 2x64 kBit/s transparent are made available. One serial B channel can be used when operating with a Standard 16550 UART.

This concept is only possible because of the high processor Performance available in the Box (Hagenuk 32 Bit-RISC processor with 36 MIPS computing capacity). The Box operates actively, i.e. it processes all data protocols itself. This makes the Box more suitable, particularly for Fax operations, than passive ISDN boards, which reduce CPU capacity when they process ISDN protocols. All in all, the Box is comparable to an active ISDN board.

The scope of delivery includes an update Programme for the Box Software, and an installation Programme with dialling assistant. With the aid of the update Programme, you can keep your Box Software up to the latest standard by installing Performance features which will be developed in the future. In addition, you can configure your Box (MSN allocation, enable Performance features) and be given support by the PC in number dialling and in identifying incoming calls.

Configuration example



2.1 Guide to putting the Data Box into operation

1. Check the scope of delivery and make sure you know the prerequisites for operating the Data Box.

2. Connect the Data Box as described

You can now be called or make calls yourself: Plug & Play.

3. Prepare the wall fixture or desk-top base.

4. Install the accompanying software on your PC.

5. Configure the Data Box to suit your personal requirements. Configuration can be carried out either using a connected telephone device or using the configuration Software on the PC. There is an online help facility available to you in the configuration Software.

If further information is required for putting the Data Box into operation, a Windows help file can be found on the CD ROM containing detailed instructions on this subject, including an example configuration which was carried out using the PC.

Scope of Delivery

- *Speed Dragon* Data Box

- Plug-in power supply unit

- Euro ISDN connection cable

- Connection cable: *Speed Dragon* Data Box (Western plug) - PC (Sub D socket 9-pin)

  Adapter: 9 pin Sub D plug - 25 pin Sub D socket.

  3 adapter cables with Western sockets for analog terminals

  Software on accompanying data media

Prerequisites for operating the Data Box

- Analogue devices with Standard a/b interfaces can be connected.

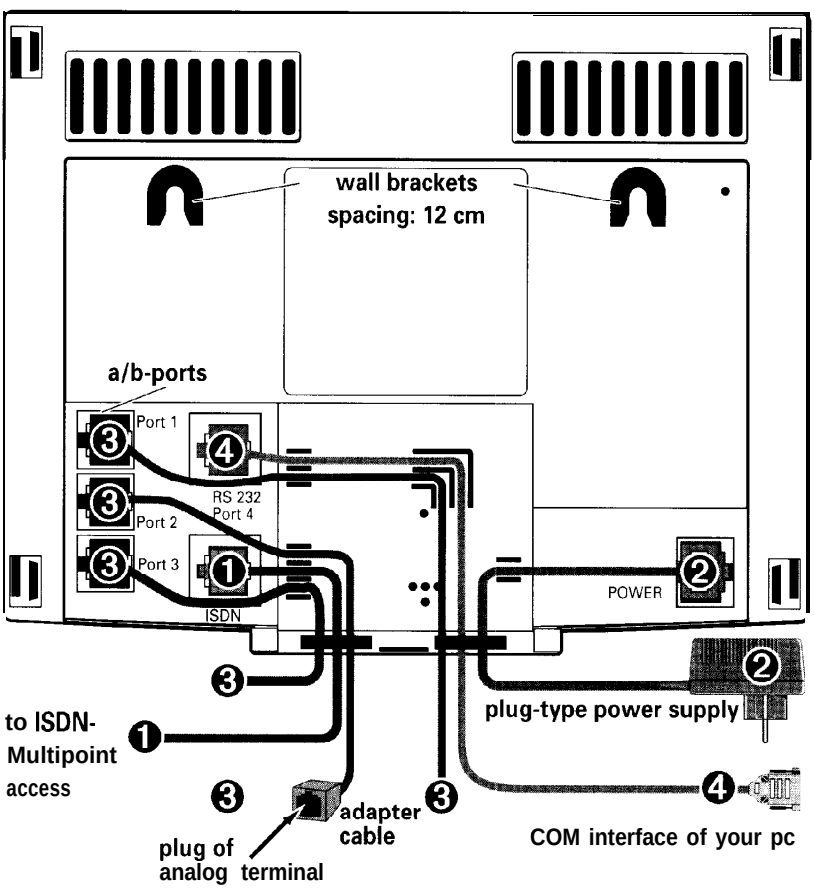
- The method of dialling can be either dial pulsing or dual-tone multifrequency (DTMF). The method of dialling will be recognised automatically. Certain conditions however require the DTMF keys "Star" and "Square (#)" to be pressed for the DTMF method of dialling!

- **Prerequisite to carrying out programming and** consultation functions **is a** signal **key** with **a "Flash"** function **and a flash time of approx. 88** ms. **It** is **therefore absolutely necessary that these settings be** carried **out using a connected analogue** device, **in** order **to make** full **use of the Data Box** functions.

- **A Euro ISDN multi-point access must be available.**

- **The PC used** must **be at least a 486 / 66 MHz** with **8 MB RAM. The operating** system can **be either Windows 3.11 or Windows 95. The COM interface must be a 16550** compatible **UART interface.**

2.2 Connections



1. Connection to the ISDN network

Using the cable supplied, connect the socket of the ISDN multi-port connection with the corresponding *Speed* Dragon Data Box "ISDN" port.

2. Connecting the plug-in power supply unit

Plug the power supply unit's output connector into the *Speed* Dragon Data Box "POWER" socket provided for this purpose. For safety reasons, the power supply unit's Western plug must be plugged into the socket in the Speed Dragon Data Box before connecting to the mains power supply. Subsequently plug the power supply unit into the mains power supply. The power supply unit must be easily accessible at all times

3. Connecting analogue terminal devices: Ports 1 - 3

You can connect your analogue terminal devices to the a/b connection sockets "Potts 1 - 3" of the Data Box. The ports are universal and can be used for all types of terminal device.
Connect the Western plugs on the cables supplied to the corresponding *Speed* Dragon Data Box port. Connect the analogue terminal devices to the telephone connection sockets.

4. Making the connection to the PC: Port 4

Connect the connection cable's Western plug to the "RS 232 / Port 4" of the *Speed* Dragon Data Box. Then either connect the connection cable's Sub D plug to a 9 pin COM interface on the PCs, or

For 25 pin COM interfaces, use the adapter provided. The PC interface must comply with EN60950, VDE 0805/A2.

Wall Fixing

- Drill two holes: diameter: 6 mm; space apart 12 cm
- Insert screw plugs
- Tighten the screws until a space of approx. 3 mm remains between screw head and wall.

  Hang the *Speed* Dragon Data Box on the screws using the supports provided for this purpose.

- Do not close off or cover the Ventilation slits in the housing

Desk-top Base

The Data Box can also be installed as a desk-top device. In this case, use the support provided for this purpose.

3.1 Using the telephone keys

See also the section regarding **"prerequisites for operating the Data Box".**

Configure the *Speed Dragon* **Data Box using a connected telephone. The method of** dialling **will be recognised automatically. Prerequisite for carrying out programming and** consultation functions is **a** signal **key with a "Flash"** function **and a flash time of approx. 88** ms. **This key** may **be** marked **with an** "R".

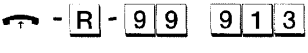
The procedure for altering the signal **key** if **necessary must be** carried **out in accordance with the telephone operating** instructions. If **your telephone** can **be set to different flash times. select the** shorter **time.**
Certain entries require the telephone keys "Star" and "Square (#)" **to be pressed (DTMF keys for the DTMF method of dialling).**

3.2 Code numbers

- Functions **are enabled by** entering code **numbers.**
- **The receiver must be** lifted **before programming.**
- **Programming** is initiated **and** terminated **by pressing the** signal **key** ("R").

- **Advisory** tones inform **you whether or not programming was successful**
- **Upon completion of programming, replace the receiver.**

Example of the presentation of an operating sequence:



This represents an operating sequence of:
Lifting the receiver, pressing **the** signal **key** ("R"), **then** entering code **number 99 followed by** code **number 913.**

3.3 Advisory tones in the telephone receiver

These tones **will assist you** during **programming:**

- **Upon completion of a successful Operation** (e.g. **when programming) you will hear a positive acknowledge tone: a long tone**

- **Incorrect Operation will be signaled by a negative acknowledge tone: 3** short tones **in quick** succession. **In** this case, **programming must be repeated.**

4.1 Guide to functions

Prerequisite for carrying out programming functions is a signal key with a "Flash" function. Certain operations requrre the DTMF keys "Star" and "Square (#)" to be pressed for the DTMF method of dialling! It is absolutely necessary to carry out all of these settings in order to make use of the full range of Data Box functions.

The settings "enter dialling code", "phone number allocation" and "authorisation for external calls" can also be made using the software supplied. The software also allows the call charge display to be read and reset.

4.2 Entering the dialling (area) code

In order that all incoming calls for your ISDN number(s) can be correctly accepted by the *Speed Dragon* Data Box, you must enter the dialling (area) code number for your telephone connection.

Enter international dialling code without "00" at the beginning - *

Enter national dialling code without "0" at the beginning - R

Example: For "00 49 - 0 45 33 - (tel. number of the connection)"

enter 4 9 * 4 5 3 3

4.3 Telephone number allocation / MSN allocation to the ports

When delivered, no ISDN (MSN) numbers are allocated to (ports 1 - 3) or the PC interface (port 4). The *Speed Dragon* Data Box accepts all calls for your ISDN connection and signals them correspondingly.

You can allocate one number (MSN) to each port (allocation of 1 MSN to each Port). The *Speed Dragon* Data Box then only transfers calls for these numbers to the respective device. When making a trunk call, this number will be transmitted to the ISDN connection being called.
In principle, exactly one number can be allocated to each port, whereby each MSN may be used only once. In this case, the PC port will be treated as an analogue port.

The collective (general) call, which can also be allocated its own MSN, serves to connect all ports to a common number. Each port which is entered into the collective call pattern will, parallel to its MSN. also be reached by the collective call MSN.

In the case **of the PC,** this **means that as a rule all** MSNs **programmed in the Data Box are logged in on it. With the aid of the PC** software **you** can determine **if and in what** case **the PC** will accept **incoming** calls.

You must remember that the PC can **differentrate between** calls **which bear the ISDN** service code **and "normal" calls. In this way you** can **use an** ISDN **number (MSN) for dual purposes: for** the **Data Box ports and for the PC. The PC will then only** accept **connections which are meant for it. A telephone connected to the Data Box which has been allocated the same number** will **not ring in this** case.

At the PC you can **use Fax and answering** machine **Programme** functions. **These** functions can **also be used for a number which has already been** allocated **to a Data Box** port. **Remember, however, that a telephone connected will not** signal **a** call **if, for example, the answering** machine **Programme has accepted the** call **without a delay time.**

You can enter your number allocations into the following table:

Number:	DataBox port:	PC / RVS COM Software:
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Number allocation for the ports

Number (MSN) allocation

- R - 9 9 9 1 1
- Enter port number: 1, 2, 3 or ❑
- Enter ISDN tel. (without dialling / area code) - R

Example; For **0 45 33** (dialling/area code) - **123456** (tel. **number)**

enter 1 2 3 4 5 6

You can erase the number allocation to a port

Erasing number allocation

- R - 9 9 9 0 1
- Enter the port number: ❑ 1, 2, 3 or 4 R

Allocating the number for the collective call function

Enter number for collective (gen.) call function

- R - 9 9 9 1 2
- Enter the ISDN number (without dialling/area code) - R

Switching OFF the collective (gen.) call function for one port

- R - 5 2
- Enter the port number: 1, 2, 3 or 4
- Enable the collective call function: 1 - R (factory defaults]
- Disable the collective call function: 0 - R

Erasing the allocated number

- R - 9 9 9 0 2 - R

4.4 Call charge meter

In order to keep count of charges, you can enter a charge factor so that the charges can be added up for you as sums of money. The factor can be can be allocated to each individual port or for the total Data Box meter. The factory default for this factor is "12".

Factor for a single port

- R - 9 9 2 1 1
- Enter the port number: 1, 2, 3 or ❑
- Enter the factor: 3 digits - R

Factor for the total Data Box meter

- R - 9 9 2 1 2
- Enter the factor: max. 3 digits - R

The meters can be erased once again:

Erasing the meter for an individual port

- R - 9 9 2 2 2 1
- Enter the port number - R

Erasing the total Data Box meter

- R - 9 9 2 2 2 2 - R

4.5 Calling line identification restriction (CLIR)

In the digital telephone network, the number of a caller can **be transmitted. With the use of the number restriction function you** can **prevent your own number (MSN) from** being **displayed to the person (with an ISDN** connection) **you are** calling. **To enable this. you must enable the** identification restriction **function (factory default: no** identification **restriction).**

In order **to be** able **to use this function, the corresponding ISDN function must be available for your telephone connection: number transmission and** identification **restriction. This must be applied for as an additional** ISDN function **as required.**

Identification **restriction** can **be enabled for individual ports and for the** collective call **function.**

Enabling restriction

- R - 9 9 5 1 1

Enter MSN (without dialling / area code) - R

Disabling restriction

- R - 9 9 5 1 0

Enter MSN [without dialling / area code) - R

4.6 Authorisation for external calls

By programming authorisation, you can **determine** which **external numbers** can **be called for outgoing calls. Incoming calls are not restricted by this** function.

Authorisation can **be given selectively for** ports **1, 2 or 3** or for **the** complete *Speed* **Dragon Data Box. The authorisation allocated to an individual port will not override the authorisation allocated to the** complete **Speed Dragon Data Box.**

Restricted access trunk calls: trunk calls cannot **be made independently. Emergency Service numbers** can **however still be accessed.**

Local access trunk calls: You can **make** local **calls. i.e. The first** digit **of the number to be called must not be a** "0".

National access trunk calls: Nation-wide calls can **be made. An external number may begin** with "0" **but not with** "00"

International access trunk calls: Calls can **be made without restriction (this is also the factory default setting).**

Authorisation for ports 1 – 3

- R - 9 9 - 1 1 - Enter the port number: 1, 2 or 3

Enter the authorisation code number:

1 = Restricted; 2 = Local; 3 = National; 4 = International

Authorisation for the *Speed Dragon* Data Box

- R - 9 9 - 1 2 - Enter the authorisation code number:

1 = Local; 2 = National; ❑ = International

4.7 Diverting calls at the ISDN network exchange

You can divert calls for your ISDN MSNs from your ISDN connection to another external number (e.g. to a connection in the analogue or digital network or to a mobile telephone). You can enable call diversion for each individual port's MSN and for the collective call MSN.
Prerequisite to diverting calls at the exchange, is that your ISDN connection has this Performance feature. The call is then diverted at the ISDN network exchange. Once the destination number has been entered, you can enable the call diversion function This destination number can be altered by entering a new number.

With the "cancel all call diversions" function, all diversions enabled at your ISDN connection (SO Bus) will be collectively cancelled at the exchange. This is also valid for call diversions which were enabled from other devices connected to this ISDN connection.

Set destination

- R - 9 9 5 0 0 2 -

MSN for a single port or collective call - R

Enter destination number - R

Enable call diversion

- R - 9 9 5 0 0 1 -

MSN for a single port or collective call - R

Disable call diversion

- R - 9 9 5 0 0 0 -

MSN for a single port or collective call - R

Disable all call diversions

- R - 9 9 5 0 9

Note: "Call diversion at the exchange"
When the call **diversion** function **is cancelled using the** code **number "99 50** 00" **it is possible that in** spite **of** carrying **out the correct procedure the negative acknowledgement tone** is **heard. The fault** cause lies **in the CALL** DIVERSION **Performance feature** implementation **method at the exchange and** is **not the fault of the Speed Dragon Data Box.**

4.8 Diverting calls via the *Speed Dragon* Data Box

You can **divert** calls **for your ISDN** MSNs **from your ISDN** connection **to another external number** (e.g. **to a connection in the analogue or digital network or to a mobile** telephone). **You** can **enable** call **diversion for** each **Individual** port's **MSN and for the collective** call **MSN.**

Diversion can **be** carried **out at the ISDN network** exchange **or via the** *Speed* **Dragon Data Box.**
For call **diversion via the Data Box, the** call **will be accepted by the Data Box and the automatically** diverted via **a 2nd connection (2nd B** channel / **B** channel**). Both channels will remain engaged** during call **diversion.**

Set destination

- R - 3 9 5 0 ___ -
- MSN for a single port or collective call - R
- Enter destination number - R

Enable call diversion

- R - 9 9 5 0 3 1 -
- MSN for a single port or collective call - R

Disable call diversion

- R - 9 9 5 0 3 0 -
- MSN for a single port or collective call - R

4.9 Selecting the dialling tone for a port

The dialling **tone** can **be heard after lifting the** receiver. **You** can choose **between a continuous dialling tone or a cadenced tone. This setting** cannot **be** carried **out on port 4. The continuous tone** is **required by some older** types **of Fax** machine **(factory** default).

Continuous dialling tone

- R - 9 9 5 3 - Port number (1 to 3) - 1

Cadenced dialling tone

- R - 9 9 5 3 - Port number (1 to 3) - 0

User's Guide

4.10 Remote programming

Once you have set up the remote programming function, you can remotely Programme and alter functions on your Data Box.
In order to rremotely Programme your Data Box you must enter a Data Box ISDN number (MSN) through which to carry out remote programming using a telephone with a tone dialling (DTMF) capability. For security purposes, enter a 4 digit Personal Identity Number (PIN) for remote programming Remote programrning can only be carried out when both MSN and PIN numbers have been entered.

You can remotely Programme the following functions:
Enter dialling code, allocation of numbers (MSN) for the ports, allocation of a number (MSN) for the collective call, MSN restriction, authorisation for external calls, call diversion at the ISDN network exchange, call diversion via the *Speed* Dragon Data Box

Setting up the remote programming facility

Enter number

☎ - R - 9 9 9 1 3 -
Enter multiple subscriber number (MSN) - R

Cancel number

☎ - R - 9 9 9 0 3 - R

Enter PIN

☎ - R - 9 9 7 1 -
Enter PIN (4 digits) - Repeat PIN - R

Using the remote programming facility

1. Call the remote programming number [using a telephone with DTMF capability): you will hear the dialling tone
2. Enter the PIN per DTMF (4 digits, see above): you will hear the dialling tone
3. Carry out the programming procedure exactly as if you were using a telephone connected directly into the *Speed Dragon* Data Box. In place of the signal key, press the "square key" #: Upon successful completion of programming you will hear the positive acknowledge tone.

4.11 Resetting to factory default settings

In order to reset the Data Box to factory defaults (see "Additional Information"), enter the following code using a connected telephone :

☎ - R - 9 8 - R - 1 5 0 6 9 6 2 3 - R

5.1 General

The Speed Dragon Data Box provides you with all the functions of a small **telephone** system. **This makes it possible to make Charge-free internal calls between analogue terminal** devices (= **extensions) and external connections through the public telephone network.**

Internal **and external calls are signaled by ringing differently:**
External calls: normal ring
Internal calls: double ring

Important note:
Prerequisite **to carrying out many operations at an analogue terminal** device is **a** signal **key with a "Flash"** function **(flash time approx. 88** ms). **Some operations** require **the DTMF keys** "star" **and** "square (#)" **to be pressed. It** is **therefore** absolutely **necessary that these settings be** carried **out using a** connected **analogue** device, in order **to make** full use **of the Data Box functions**

Internal calls:

For internal calls. the terminal devices connected have the following internal call **numbers:**
Port 1 = **internal** call **number 1, Port 2** = **internal** call **number 2,**
Port 3 = **internal** call **number 3**

- R - **Call internal number:** S1 , 2p or 3e - a k

External calls:

For external calls, simply dial the number required. The line **to the public network** will **be automatically accessed**

- **Call external number - Speak**

Note regarding the consultation hold, extending a call, toggling and Conference call functions:
If **the 2"" connection** is **to be made to an external number, the number** dialled **must be prefixed by a** "0".

5.3 Consultation

You can **make a 2nd connection** during **a** call. During consultation, **the 1st caller** is placed on **"hold". He** cannot **hear your** conversation. **When** consultation is **completed, you return to the 1 st caller.**

Note: If **the** 2nd connection is **to be made to an external number, the number dialled must be prefixed by a** "0".

You are receiving a call - R - initiate 2nd call:

internal call: **internal number**

or **external call:** 0 - **external number**

Consultation hold connection

End consultation: R - Return to 1st caller

5.4 Extending a call

You can **make a 2nd connection** during **a** call **and subsequently connect both participants (extending a** call).

Note: If **the 2nd connection** is **to be made to an external number, the number** dialled must **be prefixed by a** "0".

Extending the call to an internal extension: you can **extend external** calls **to another internal number.**
You are receiving a call:

R - Dial internal number: 1, 2 or 3

Notify extension - Call is extended

Extending the call to an external telephone: you can **extend internal** calls **to an external telephone.**
You are receiving a call:

R - 0 - Dial external number

Notify extension - Call is extended

Note: If **an extended** call **without** notification **is not accepted, the** call **will be returned to the original number after a certain period of time. Returned** calls can **be recognised by the ring (double rings in quick** succession)

5.5 Toggling

The "toggle" function enables you to talk alternately with 2 participants. The participant who is not connected to you at any one time cannot hear the conversation!
"Toggling" is also possible to 2 external numbers.

Enable toggling:
You are receiving a call:

R 9 2 - Make 2nd connection: 0 - External number

When the 2nd connection is made: R - by pressing the signal key

you can alternate between the two connections

Cancel toggling: When the receiver has been replaced, the remaining connection will automatically recall.

Cancel toggling:
During a call:
Replace the receiver: When the receiver has been replaced, the remaining connection will automatically recall.

5.6 Conference

A "Conference" is a joint conversation between 3 participants (2 internal and 1 external or. 1 internal and 2 external). External calls cannot be received while the Conference is in progress.

Note: If the 2nd connection is to be made to an external number. the number dialled must be prefixed by a "0".

Enabling a Conference:

R 9 3 - Make 2nd connection: Internal number

Or: 0 - External number

As soon as the 2nd connection is made: R Enable the Conference

Ending a Conference: If one Conference participant rings off, the other two participants will remain in contact.

Ending the Conference:
If one Conference participant rings off, the other two participants will remain in contact.

User's Guide

5.7 Call pick-up

You can take a call destined for the ISDN MSN of an other a/b connection to the *Speed* Dragon Data Box on your own telephone. To do this, use the call pick-up function.

A call is signalled at another telephone:

↩ - R - 9 0 - ↪ You are connected to the caller

5.8 List of callers

Calls which are not answered will automatically be stored in the list of callers. Prerequisite: The ISDN number of the caller was transmitted. In general this is not the case for incoming calls from the analogue telephone network. When such numbers are entered into the list of callers they will be shown to you on the display.
The entries in the list of callers can be selectively called up using a connected telephone and displayed on the *Speed Dragon* Data Box in succession.
Up to 10 entries can be stored in the list of callers. after which the next entry will delete the oldest entry.

Numbers stored in the list of callers can be used to automatically dial the caller. As soon as connection is made, the entry will be erased from the list

You wish to browse through the list of callers:

↩ - ❑ - 9 4 - 1st Entry from the list of callers is displayed.

You can now:

- ✳ Scroll to the next entry
- ❑ Erase that entry
- # Enable that number to be dialled

Technical Data

Dimensions:	208 x 172 x 58 mm (W x H x D)
Weight:	approx. 460 g
SO interface:	DSS1
a/b interface:	Western socket RJ 45/11, length 2 x 50 Power supply 22V=; 24 mA

Data transfer via a connected analogue modern:
up to 28.800 bit/s

Data transfervia the RS 232 PC connection:
up to 230.400 bit/s

Data protocols:
- Transparent
- x.75
- T.70
- V.110
- V.120
- ISO 8208 Euro-File transfer

Call signalling:	50 V; 50 Hz distortion factor 15%
Ring current loading:	for 3 bells
Loop identification:	10 ms
Power supply:	Plug-in power supply primary side 230 V; 1-60% -10% Secondary 10,5 V=; 24 V=; 48 V
Installation:	Desk-top or wall mounted
Ambient temparature:	0 . ..+40 c
Storage temperature:	-10" c up to +70° c
Relative humidity:	Environmental class 3.1 in accordance with ETS 3000 19-1-3
Climatisation:	none
Material:	ABS Plastic, flame retardant (Europa series)

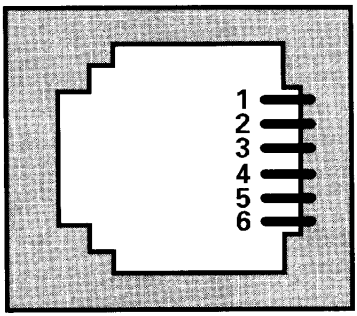
Subject to technical modifications!

User's Guide

Connections

Connection to the ISDN telephone network: Euro-ISDN / Multi-point **access**

Internal analogue terminal device connection (ports 1 - 3):
Connection for terminal devices approved in accordance with BAPT 223ZV5, **BAPT** 222ZV80 **or** 1TR2. **The terminal devices must satisfy the relevant VDE regulations (VDE0805, DIN EN 60950).**
Any type of terminal device, like **telephone, Fax** machine **or modern.** can **be connected.**



PIN / Signal:
1 = not used, 2 = **La,** 3 = **not used, 4 = not used, 5** = Lb, 6 = **not** used

PC connection (port 4): RS 232 socket
Connection cable with **Standard Sub-D** plug **for connection to a 9 pin COM interface on the PC. For 25 pin COM** interfaces **the adapter** supplied **must be** used.
The PC must satisfy the relevant VDE regulations (VDE0805, **DIN EN 60950).**
The operating system can **be either Windows 3.11 or** Windows **95.**
The COM interface should be a 16550 compatible **UART interface.**

Subject to technical modifications!

Factory default settings

The Speed Dragon Data Box is delivered with the following factory defaults:

No ISDN numbers MSNs **allocated to the ports.**
No ISDN number has been allocated to the collective call **Number** restriction: **not restricted**
Call **diversion: none**
Authorisation: all ports international
Call charge factor: **12**

Cleaning

Clean the Data Box using **a slightly damp** cloth **or an** anti-static **duster; do not use a** dry **cloth. Avoid the use of** cleaning **agents and abrasives.**

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Registration and CE label

This product **conforms with the fundamental requirements of all relevant directives issued by the** European **Council. The conformity** evaluation processes **prescribed have been** carried **out (CE 0188 X).**

This product fulfils the requirements of the following EU directives:

- 92/31/EWG - **EMV-Richtlinie** (EMC directive)Richtlinie 92/31/EWG **des Rates vom** 28.April **1992 zur Änderung der Richtlinie** 89/336/EWG **zur Angleichung der Rechtsvorschriften der Mitgliedsstaaten über die elektromagnetische Verträglichkeit.**
  (Council Directive 92/31/EEC **of 28 April 1992** amending **directive** 89/336/EEC **on the approximation of the** laws **of the Member States** relating to electromagnetic **compatibility)**
- 93/68/EWG Niederspannungs-Richtlinie (Low Voltage **directive) Richtlinie** 93/68/EWG **des Rates vom** 22.Juli **1993 zur Änderung der Richtlinie** 73/23/EWG **zur Angleichung der Rechtsvorschriften der Mitgliedsstaaten betreffend elektrische Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen.**
  (Council Directive 93/68/EEC **of 22** July **1993** amending directive 73/23/EEC **on the** approximation **of the** laws **of the Member States** relating to **electrical equipment designed for** use **within** certain **voltage** limits)
- I-CTR **3** (94/797/EG)Entscheidung **der Kommission vom** 18.November **1994 über eine gemeinsame technische Vorschrift für den Basisanschluß an das europaweite** diensteintegrierende **Netz (ISDN).**
  (Council decision of 18 November 1994 relating to **attachment** requirements **for terminal** equipment to **connect** to **an ISDN using ISDN** basic **access)**

The equipment also meets:
BAPT 224 ZV 1 (12/92) **approval directive for ISDN terminal devices at ISDN** basic **access (layer 1)**

BAPT 223 ZV 7 (07/95) **approval directive for ISDN terminal** devices **for connection to an ISDN** basic **access.** EURO-ISDN, **of Deutsche Telekom (layer 2 and layer 3** aspects **of the D-channel protocol** DSS1) **for Operation in the German** ISDN.

User's Guide

Questions and Answers

Question: **What type of device can be connected to the three analogue ports ?**

Answer:

All analogue devices with a standard a/b interface can **be connected:**

- **analogue telephones with DTMF dialling and flash key (no ground key);**
  Devices with dial pulsing can:
  - **not be** used **for internal calls**
  - **not be used for programming**
- **Group 3 Fax machines**
- **Answering machines**
- **Modems with a data transfer rate of** up to 33.600 bit/s (V.34+ **capability)**

Question: **How are internal and external calls made ?**

Answer:

Internal calls are made using the flash key, external calls can **be** dialled directly.

Question: **What call charges are displayed at the Speed Dragon Data Box?**

Answer:

A sum total of all Data Box charges. **The display** can **be reset to zero using either the PC set-up Programme or a connected telephone with the** procedure "R **99 22 22** R" **(R** = signal **key). Resetting the individual** ports **and the PC are not affected by this.**

Question: **How is a firmware update made to the *Speed Dragon* Data Box ?**

Answer:

The operating software is **stored in a FLASH ROM and** can **be reloaded at any time using the** "Flashloader" **Windows Programme supplied. Updates are available from the Hagenuk** EuroFile **Transfer and** can **be downloaded as follows:**

Tel. No.: (+49) **0431 8818 7709**
Name: "Gast" **Code: no entry required**

Copy the appropriate file into the "*SpeedDragon*" **directory and then** start **the** "Flashloader". **You** can **then carry out a menu** controlled **update.**

Question: **Which CAPI Version should be used for the *Speed Dragon* Data Box?**

Answer:

The Dual CAPI **is delivered with the** *SpeedDragon*Data **Box. As a** rule **the CAPI Version 2.0 should be installed,** in order **to guarantee trouble-free Operation**

If problems **occur in accessing the Internet via T-Online, this** could **be the fault of the CAPI in the T-Online directory. In this** case, erase **the** "CAPI.DLL" **in the T-Online directory, and re-boot your** system. **It will then automatically use the CAPI delivered by Hagenuk.**

Question: **How can unexplainable problems be remedied ?**

Answer: **The** following **procedure** restores **the Data Box to a defined state:**

a) With Windows PC's, **in the** system **control,** under *Speed* **Dragon Data Box, you** can **reset the** configuration **of the installation** software **per** menu, **back to factory defaults.** If **necessary, subsequently** start **the "Flashloader" Programme from the** *Speed* **Dragon Data Box Programme group and transfer the** firmware **to the Data Box** (in **most** cases **this will not be** necessary).

b) **With non-Windows** PC's **you should use the following procedure to reset the Data Box back to factory defaults:**
"R **98 R 15 06 96 23** R" **(R** = signal **key).**

Question: **What does the fault message "Hagbase.386 / HagV24.386 defective or not available" mean?**

Answer: **Take a look at your** Help/Info **in the programme** manager **to find out** which Win 3.xx version **you are running.**
With Win 3.1 drivers required by the Software are missing. Replace your operating system with WfW **3.11 or Win 95, if you** wish **to continue using your Data Box Data Box.**